

Title (en)

PERMANENT MAGNET TYPE ROTARY ELECTRICAL MACHINE

Title (de)

ELEKTRISCHE DREHMASCHINE MIT PERMANENTMAGNET

Title (fr)

MACHINE ÉLECTRIQUE ROTATIVE DE TYPE À AIMANT PERMANENT

Publication

EP 2372885 A4 20160914 (EN)

Application

EP 09833196 A 20091215

Priority

- JP 2009006899 W 20091215
- JP 2008317955 A 20081215
- JP 2008320141 A 20081216
- JP 2008320138 A 20081216
- JP 2009258430 A 20091111

Abstract (en)

[origin: EP2372885A1] According to one embodiment, a rotor is configured by a rotor core and magnetic poles. Two or more types of permanent magnets are used such that each product of coercivity and thickness in the magnetization direction becomes different. A stator is located outside the rotor with air gap therebetween and configured by an armature core winding. At least one permanent magnet is magnetized by a magnetic field by a current of the armature winding to change a magnetic flux content thereof irreversibly. A short circuited coil is provided to surround a magnetic path portion of the other permanent magnet excluding the magnet changed irreversibly and a portion adjacent to the other permanent magnet where the magnetic flux leaks. A short-circuit current is generated in the short circuited coil by the magnetic flux generated by conducting a magnetization current to the winding. A magnetic field is generated by the short-circuit current.

IPC 8 full level

H02K 1/02 (2006.01); **H02K 1/22** (2006.01); **H02K 1/27** (2006.01); **H02K 15/03** (2006.01); **H02K 15/08** (2006.01); **H02K 21/02** (2006.01);
H02K 21/14 (2006.01)

CPC (source: EP US)

H02K 1/02 (2013.01 - EP US); **H02K 1/223** (2013.01 - US); **H02K 1/2766** (2013.01 - EP US); **H02K 15/03** (2013.01 - EP US);
H02K 21/028 (2013.01 - EP US); **Y10T 29/49009** (2015.01 - EP US); **Y10T 29/49012** (2015.01 - EP US)

Citation (search report)

- [A] EP 0917272 A1 19990519 - FUJITSU GENERAL LTD [JP]
- [A] WO 2008018354 A1 20080214 - TOSHIBA KK [JP], et al
- [A] WO 2008023413 A1 20080228 - TOSHIBA KK [JP], et al
- [A] JP H08182282 A 19960712 - RAILWAY TECHNICAL RES INST, et al
- See references of WO 2010070888A1

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

EP 2372885 A1 20111005; **EP 2372885 A4 20160914**; **EP 2372885 B1 20170705**; CN 102246399 A 20111116; CN 102246399 B 20140409;
US 2011304235 A1 20111215; US 2014283372 A1 20140925; US 2014283374 A1 20140925; US 2014285051 A1 20140925;
US 8796898 B2 20140805; US 9373992 B2 20160621; US 9490684 B2 20161108; US 9496774 B2 20161115; WO 2010070888 A1 20100624

DOCDB simple family (application)

EP 09833196 A 20091215; CN 200980150361 A 20091215; JP 2009006899 W 20091215; US 200913139889 A 20091215;
US 201414296116 A 20140604; US 201414296177 A 20140604; US 201414296238 A 20140604